

METHOD AND APPARATUS FOR CONTROLLING MULTIPLE LOGICAL DATA FLOW IN A VARIABLE DATA RATE ENVIRONMENT

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ABSTRACT OF THE DISCLOSURE

A method and apparatus that enables incremental control the flow of downlink data on an external interface-by-interface basis, reducing the risk of repeatedly exhausting internal memory resources. A mobile device (300), having a plurality of device interfaces (328-330) for transmitting data received from a network (306) through a network controller (302), includes an identity associating layer (322) that associates identifiers with packet data protocol contexts corresponding to the plurality of device interfaces. A general resource indicator (334) generates a first indication in response to system memory of the mobile device being substantially exhausted, and a private resource indicator (336) generates a second indication in response to private resources corresponding to the plurality of device interfaces being substantially exhausted. A control processing unit (332) generates a flow control indication signal in response to the first indication, the second indication, flow control information corresponding to the plurality of interfaces, and the identifiers associated by the identity associating layer. A bit-map generator (338) generates a bit-map, based on the flow control indication signal, that is transmitted to the radio network controller, which interprets the bit-map to discretely control transmission of data from the radio network controller to the plurality of device interfaces.

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